HISTORIC PROPERTY INVENTORY FORM

State of Washington, Department of Community Development
Office of Archaeology and Historic Preservation
111 21st Avenue Southwest, Post Office Box 48343
Olympia, Washington 98504-8343 (206)753-4011

INDENTIFICATION SECTION

Field Site No. 1325-N **OAHP No.** _____ **Date Recorded** 10-Jun-97
Site Name Historic Liquid Effluent Disposal Crib
Common
Field Recorder Darby Stapp, Evaluator: Darby Stapp
Owner's Name U.S. Department of Energy, Richland Operations Office
Address P.O. Box 550
City/State/Zip Code Richland, WA 99352

LOCATION SECTION

Address 100-N Reactor Area, 1325-N
City/Town/County/Zip Code Richland, WA/Benton County/99352
Twp. 14N **Range** 26E **Section** 28 **1/4 Section** NW **1/4 1/4 Sec** SE
Tax No./Parcel No. **Acreage**
Quadrangle or map name Coyote Rapids 7.5 min. series
UTM References Zone 11 **Easting** 303974 **Northing** 5172485
Plat/Block/Lot
Supplemental Map(s) 100-N Area Buildings

Status

- [X] Survey/Inventory
- [ ] National Register
- [ ] State Register
- [ ] Determined Eligible
- [ ] Determined Not Eligible
- [ ] Other (HABS, HAER, NHL)
- [ ] Local Designation

Photography

Photography Neg. No. E9706091.3 (BHI Graphics)
(Roll No. & Frame No.)
View of Looking North
Date 1987

Classification [ ] District [ ] Site [ ] Building [X] Structure [ ] Object
Distric Status [X] NR [ ] SR [ ] LR [ ] INV
Contributing [X] **Non-Contributing** [ ]
District/Thematic Nomination Name Hanford Site Manhattan Project and Cold War Era Historic District

Description Section
Materials & Features/Structural Types
Building Type Industrial
Plan Rectangular
Structural System Reinforced Concrete
No. of Stories Subsurface

Roof Type

- [ ] Gable
- [X] Flat
- [ ] Monitor
- [ ] Gambrel
- [ ] Shed
- [ ] Hip
- [ ] Pyramidal
- [ ] Other (specify)

Cladding (exterior Wall Surfaces

- [ ] Log
- [ ] Horizontal Wood Siding
  - Rustic/Drop [ ]
  - Clapboard [ ]
- [ ] Wood Shingle
- [ ] Board and Batten
- [ ] Vertical Board
- [ ] Asbestos/Asphalt
- [ ] Brick
- [ ] Stone
- [ ] Stucco
- [ ] Terra Cotta
- [ ] Concrete/Concrete Block
- [ ] Vinyl/Aluminum Siding
- [ ] Metal (specify)
- [ ] Other (specify)

Roof Material

- [ ] Wood Shingle
- [ ] Wood Shake
- [ ] Composition
- [ ] Slate
- [ ] Tar/Built-up
- [ ] Tile
- [ ] Metal (specify)
- [X] Other (specify) Concrete Slabs
- [ ] Not visible

Foundation

- [ ] Log
- [ ] Post & Pier
- [ ] Stone
- [ ] Brick
- [ ] Not visible

Concrete
- [ ] Block
- [ ] Poured
- [ ] Other (specify)

Integrity (Include detailed description in **Description of Physical Appearance**)

	Intact	Slight	Moderate	Extensive
Changes to plan	X			
Changes to windows				
Changes to original cladding				
Changes to interior				
Other (specify)				

High Styles/Forms (Check one or more of the following)

- [ ] Greek Revival
- [ ] Gothic Revival
- [ ] Italianate
- [ ] Second Empire
- [ ] Romanesque Revival
- [ ] Stick Style
- [ ] Queen Anne
- [ ] Shingle Style
- [ ] Colonial Revival
- [ ] Beaux Arts/Neoclassical
- [ ] Chicago/Commercial Style
- [ ] American Foursquare
- [ ] Mission Revival
- [ ] Spanish Colonial Revival/Mediterranean
- [ ] Tudor Revival
- [ ] Craftsman/Arts & Crafts
- [ ] Bungalow
- [ ] Prairie Style
- [ ] Art Deco/Art Moderne
- [ ] Rustic Style
- [ ] International Style
- [ ] Northwest Style
- [ ] Commercial Vernacular
- [ ] Residential Vernacular (see below)
- [X] Other (specify) Industrial Vernacular

Vernacular House Types

- [ ] Gable Front
- [ ] Gable Front and Wing
- [ ] Side Gable
- [ ] Cross Gable
- [ ] Pyramidal/Hipped
- [ ] Other (specify)

NARRATIVE SECTION

Study Unit Themes (check one or more of the following)

	Agriculture		Conservation		Politics/Government/Law
	Architecture/Landscape Architecture		Education		Religion
	Arts		Entertainment/Recreation		Science & Engineering
	Commerce		Ethnic Heritage (specify)		Social Movements/Organizations
	Communications		Health/Medicine		Transportation
	Community Planning/Development		Manufacturing/Industry	X	Other (specify) Manahattan Project & Cold War Era
			Military	X	**Study Unit Sub-Theme(s) (specify)**
					Cold War/Nuclear Fuel Production
					Waste Management (Liquid)

Statement of Significance

Date of Construction 1983 Architect/Engineer/Builder United Nuclear

X In the opinion of the surveyor, this property appears to meet the criteria of the National Register of Historic Places.

X In the opinion of the surveyor, this property is located in a potential historic district (National and/or local).

The 1325-N Crib and Trench is a major inactive waste management unit located approximately 300 m (1,000 ft) east of the 1301-N Trench and Crib. The 1325-N Crib and Trench was used from 1983 until 1986. 1325-N Crib was constructed as a replacement liquid radioactive waste disposal facility for the 1301-N Crib and Trench, which had reached its capacity. The unit received radioactive effluents from the reactor coolant system, spent fuel storage basin, periphery coolant systems, and various radioactive drain systems located throughout the 100-N Reactor facility.

When operating, discharges to this facility approximated 1,700 L/min (450 gal/min). The disposal facility made use of the natural filtration and ion-exchange properties of soil to remove radioactive material from the water. Because of low percolation rates in the soil column, the 1325-N Crib was not able to reach designed flow capacity, resulting in overflows. To compensate, the 1301-N facility was kept in operation through 1985 to share liquid wastes, until the 1325-N Trench was added. Major discharges ended in January 1987 and all discharges ended in August 1991. Today, the facility is radioactive, containing large quantities of cobalt-60, strontium-90, and cesium-137.

This property is not associated with an important person (Criterion B), does not possess any distinctive architectural features or methods of construction (Criterion C), and does not qualify under Criterion D as the principal source of important information. However, the 1325-N Crib and Trench qualifies under Criterion A due to its association with the Cold War production of plutonium at N Reactor, and it contribution to Reactor Operations, specifically the Liquid Waste Management System. Therefore, it is the conclusion of the U.S. Department of Energy that the 1325-N Crib and Trench is eligible under Criterion A for inclusion on the National Register of Historic Places as a contributing property within the Hanford Site Manhattan and Cold War Era Historic District.

Description of Physical Appearance

The 1325-N facility is composed of three distinct parts: the crib, the zig-zag trench, and the pipelines. The 1325-N Crib measures 76 m (250 ft) in length and 73 m (240 ft) in width. A 914-m (3,000-ft) extension trench, 17 m (55 ft) wide and 2 m (7 ft) deep, was added to augment operation of the crib. Both the crib and trench are coverered with precast, prestressed concrete cover panels, completely sealed with grout, to minimize wildlife access and windborne contamination. The trench is divided into four equal sections by three dams. The crib cover is approximately 3 m (10 ft) lower than the surrounding ground and less than 1.5 m (5 ft) above the percolation surface. Rock stabilization materials were used on the slopes around the crib to minimize wind erosion. Today the facility is surrounded by gravel and a chain link fenced-off area and posted with signs warning of the radiation hazards.

The N Reactor UTM coordinates are as follows: Northeast corner - 303974E, 5172485N; southeast corner - 303974E, 5171639N; southwest corner - 303069E, 5171639N; northwest corner - 303069E, 5172485N.

Major Bibliographic References

DOE-RL. RCRA Facility Investigation/Corrective Measures Study Work Plan for the 100-NR-1 Operable Unit, Hanford Site, Richland, Washington. DOE/RL-90-22 Draft F, 1994.
DOE-RL. 100-NR-1 Treatment, Storage, and Disposal Units Corrective Measures Study/Closure Plan. DOE/RL-96-39. Draft A.